

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022414**Date Inspected:** 29-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Steve McConnell**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Grillage**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

North and South Suspender Brackets:

Production welding is completed, QC inspections are completed and accepted, QA verification inspections completed.

East Tower leg:

Production welding is completed, QC inspections are completed and accepted, QA verification inspections completed.

South Tower leg:

Production welding is completed, QC inspections are completed and accepted, QA verification inspections completed.

West Tower leg:

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Production welding is completed, QC inspections are completed and accepted, QA verification inspections completed.

North Tower leg:

This QA Inspector randomly observed ABF welding personnel Gil Peralta (#9453) using a grinder to finish the excavation at weld joint TG-N-P1-P2. This QA Inspector observed QC Inspector Steve McConnell perform and accept a visual and Magnetic Particle Testing (MT) on the completed excavations at weld joints TG-N-P1-P2 and TG-N-P5-P7. This QA Inspector observed the following: TG-N-P1-P2 at Y-330 with a length of 135 mm, 35 mm wide and 26 mm deep, TG-N-P5-P7 at Y-500 with a length of 140 mm, 30 mm wide and 26 mm deep. This QA Inspector observed ABF welding personnel Gil Peralta (#9453) start welding at weld joint TG-N-P1-P2. This QA Inspector was informed by QC Inspector Steve McConnell that during the welding of the first layer a MT indication was observed and additional grinding was performed which lengthened the excavation to 200 mm. This QA Inspector the welding at this location was completed at approximately 1130 hours this date. This QA Inspector observed ABF welding personnel Gil Peralta (#9453) using a hand held gas torch to preheat the repair excavation at TG-N-P5-P7 prior to welding. This QA Inspector verified the preheat temperature was greater than 200°F by using a temperature indicating marker. This QA Inspector observed the welding of the root pass and QC Inspector perform and accept a visual and MT of the root weld. This QA Inspector observed the welding was completed at approximately 1415 this date.

This QA Inspector was informed by QC Inspector Steve McConnell the welding parameters for ABF welding personnel Gil Peralta (#9453) were within the required heat input range in the Welding Procedure Specifications ABF-WPS-D15-1042A-4. This QA Inspector randomly observed the amperages and voltages appeared to be within the range in the WPS. This QA Inspector observed that both 3.2 mm and 4.0 mm diameter E9018H4R electrodes were being used and stored in separate heated storage containers. This QA Inspector also observed the 1-hour exposure limit for the electrodes appeared to be monitored and adhered to.

Later this date, this QA Inspector observed as QC Inspector Steve McConnell performed a preliminary visual inspection and Ultrasonic Testing (UT) on both repair welds, TG-N-P1-P2 and TG-N-P5-P7. QC Inspector Steve McConnell informed this QA Inspector that both repair welds appeared to be acceptable at this time, but that the final inspections would be performed Thursday afternoon, after the 48 hold time.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above there were no notable conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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Inspected By: Hager,Craig

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer